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d/c  
7-8-1  
Docket No. 004770.00035

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Ye Wang

EXAMINER:

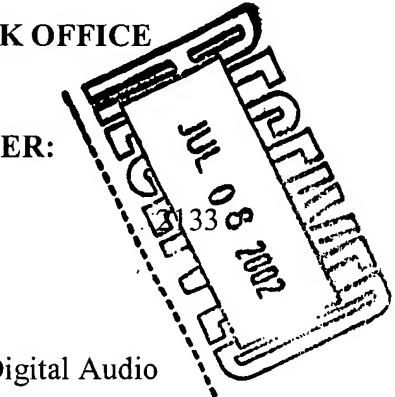
SERIAL NO. 10/020,579

GROUP:

FILED: December 14, 2001

FOR: System and Method for Error Concealment in Digital Audio  
Transmission

ASSISTANT COMMISSIONER FOR PATENTS  
WASHINGTON, DC 20231



Sir:

**INFORMATION DISCLOSURE STATEMENT**

In accordance with the provisions of 37 C.F.R. §§1.56 and 1.97, Applicant herewith submits the publications and/or patents shown on the attached form PTO-1449, for consideration by the Examiner in connection with the examination of the above-identified patent application.

**REMARKS**

In accordance with the provisions of 37 C.F.R. §1.97, this statement is being filed (CHECK ONE):

(1) within three (3) months of the **Filing Date** or before the mailing date of the **First Office Action** on the merits; or

(2) after the period defined in (1) but before the mailing date of a **Final Rejection** or **Notice of Allowance**, and the requisite Certification or fee under Rule 1.17(p), is included herein; or

— (3) after the mailing date of a **Final Rejection or Notice of Allowance** but before the payment of the **Issue Fee**, and the requisite Certification and fee are included herein.

It is respectfully requested that each of the documents shown on the attached form(s) PTO-1449 be made of record in this application. Copies of these documents (CHECK ONE):

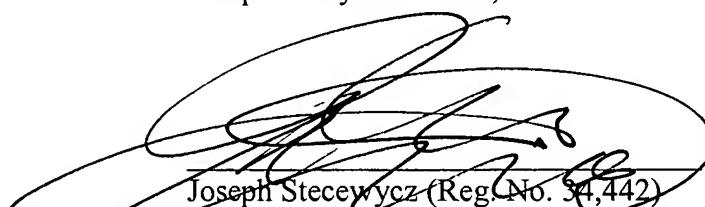
X are enclosed herewith; or  
— are in the file of related application Serial No. 00/000,000, filed \_\_\_\_\_, and are thus not being resubmitted herein.

Early examination and allowance of the present application are respectfully solicited.

#### FEE AUTHORIZATION

Should any fee associated with the submission of this paper not be attached hereto as a check, the Commissioner is authorized to charge the missing fee to our Deposit Account, No. 19-0733. Any overpayments should be credited to said Deposit Account.

Respectfully submitted,



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Date: 4/26/2002

FORM PTO-1449  
(Rev. 2-32)

U.S. Department of Commerce  
Patent and Trademark Office

Atty. Docket No.

004770.00035

Serial No.

10/020,579

INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT

(Use several sheets if necessary)

Applicant:

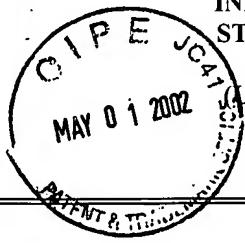
Ye Wang

Filing Date:

December 14, 2001

Group:

2133



U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	5,148,487	09/15/1992	Nagai et al			
	5,579,430	11/26/1996	Grill et al			RECEIVED
	5,852,805	12/22/1998	Hiratsuka et al			MAY 03 2002

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FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No
	0 718 982 A2	06/26/1996	EP				
	98/13965	04/02/1998	WO				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

1	HERRE, et al, Evaluation of Concealment Techniques for compressed Digital Audio, Audio Engineering Society Preprint, March 16 – 19, 1993, Preprint 3460 (A1-4), Erlangen, Germany
2	BOLOT et al, Analysis of Audio Packet Loss in the Internet, Proc. Of 5 <sup>th</sup> Int. Workshop on Network and Operating System Support for Digital, Audio and Video, pp. 163-174, Durham, April 1995
3	International Standard ISO/IEC, Information Technology – Coding of Moving Pictures and Associated Audio for Digital Storage Media at up to About 1.5 Mbit/s – Part 3, Audio Technical Corrigendum 1, Published 1996-04-15
4	STENGER et al, A New Error Concealment Technique for Audio Transmission with Packet Loss, Telecommunications Institute, University of Erlangen-Nuremberg, Cauerstrasse 7, 91058 Erlangen, Germany, Eusipco 1996
5	McKINLEY et al, Experimental Evaluation of Forward Error Correction on Multicast Audio Streams in Wireless LANs, Department of Computer Science and Engineering, Michigan State University, East Lansing, Michigan 48824, pp. 1 – 10, Copyright 2000 ACM
6	NISHIHARA et al, A Practical Query-By-Humming System for a Large Music Database, NTT Laboratores, 1 – 1 Hikarinooka, Yokosuka-shi, Kanagawa, 239-0847, Japan pp. 1 – 38
7	WANG, Y., Vilermo, M., Isherwood, D. "The Impact of the Relationship Between MDCT and DFT on Audio Compression: A Step Towards Solving the Mismatch", the First IEEE Pacific-Rim Conference on Multimedia (IEEE-PCM2000), December 13 – 15, 2000, Sydney, Australia, pp. 130 – 138
8	PERKINS, C., Hodson, O., Hardman, V., "A Survey of Packet-loss Recovery Techniques for Streaming Audio," IEEE Network, Sept/Oct. 1998.
9	ETSI Rec. GSM 6.11, "Substitution and Muting of Lost Frames for Full Rate Speech Signals," 1992
10	GOODMAN, O.J. et al., "Waveform Substitution Techniques for Recovering Missing Speech Segments in Packet Voice Communications," IEEE Trans. Acoustics, Speech, and Sig. Processing, vol. ASSP-34, no. 6, Dec. 1986, pp. 1440-1448

	11	WASEM, O.J. et al, "The Effects of Waveform Substitution on the Quality of PCM Packet Communications," IEEE Trans. Acoustics, Speech, and Sig. Processing, vol. 36 no. 3, March 1988, pp. 342 – 348
	12	SANNECK, H. et al., "A New Technique for Audio Packet Loss Concealment," IEEE Global Internet 1996, Dec. 1996 pp. 48 – 52
	13	CHEN, Y.L., Chen, B.S., "Model-based Multirate Representation of Speech Signals and its Application to Recovery of Missing Speech Packets," IEEE Trans. Speech and Audio Processing, vol. 15, no. 3, May 1997, pp. 220 - 231

EXAMINER 	DATE CONSIDERED
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EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication

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